

REMARKS

The Patent Office has rejected claims 1-6 for obviousness. Specifically, all pending claims are rejected under 35 U.S.C. § 103 as allegedly obvious (i) over U.S. Patent No. 6,818,146 to Eaton et al. (Eaton) in light of PCT Pub. No. WO 02/055630 (PCT '630) and (ii) over PCT Pub. No. WO 02/055759 (PCT '759) in light of PCT '630. Applicants respectfully request reconsideration of these rejections, because the data provided in the table in the specification shows unexpected results over the cited prior art.

Specifically, the Patent Office does not appear to appreciate an important aspect of the data in the specification.

The Examiner argues that “low conductivity amongst fuel cells has already been disclosed” in the prior art. (Office Action at 4.) Applicants do not disagree. But the longevity and duration of a low conductivity of the unexpected type identified in the data tables has not been disclosed. It is the relatively constant low conductivity over time that is unexpectedly shown in Table 1 on page 8 of the specification. As Table 1 shows, the two tested compositions within the scope of the pending claims have a relatively constant electrical conductivity over 28 days. The comparative example, however, shows a marked increase over the same time period.

Applicants respectfully believe, therefore, that the Patent Office may not have fully appreciated has an important aspect of the data – that is, the durability of the low conductivity. That is, this property of the claimed invention does not noticeably deteriorate over 28 days.

Eaton does not disclose this property; rather, Table 6 of Eaton shows an increase in conductivity from 9 to 14 $\mu\text{mhos}/\text{Cm}$ between 10 days and 30 days. (Eaton at 10:3.) Furthermore, neither PCT '759 nor PCT '630 disclose a relatively constant conductivity over time. PCT '630, for example, discloses examples in which the electrical conductivity (i) increases from 0.8 to 3.0 $\mu\text{S}/\text{cm}$ between 7 and 42 days and (ii) increases from 2.2 to 14.4 $\mu\text{S}/\text{cm}$ between 7 and 42 days.

Moreover, the Patent Office appears to improperly dismiss the unexpected results evidenced in Table 1 because "applicant does not compare the claimed invention against the prior art of record." (Office Action at 4.) Applicants do not understand this argument; the data in the table shows expected results when compared against prior art. Indeed, test data in the specification and the prior art all show an increase in electrical conductivity for the closest non-inventive compositions. Eaton and PCT '630 both show (as pointed out above) that a relatively constant conductivity is unexpected and strong objective evidence of the nonobviousness of the claimed subject matter. Further testing is unnecessary and duplicative over the evidence of record.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is encouraged to contact the Applicants' representative. Prompt reconsideration and allowance of this application is requested.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed

Bernd WENDEROTH et al.
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herewith (or with any paper hereafter filed in this application by this firm) to our Account
No. 14-1140.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Gordon P. Klancnik/

Gordon P. Klancnik
Reg. No. 50,964

GPk:glf
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100